

College / University course for AMEs & LAMEs (4 years - 8 month long sessions with requirement to acquire 2 years hands-on experience in LINE maintenance prior to the 3rd year entry, and another 2-3 years hands-on experience in BASE / HEAVY maintenance prior to the 4th years' entry)

This outline based upon German and British Aeronautical Engineering trade and theory practices.

### Pre-requisites

4 year High-school technical program with the final 2 years specific to / for aircraft mechanic trades (HS foundation in Tech including +maths +physics + visual arts + chemistry + drafting / blueprint reading + machine shop + automotive shop + pattern making + welding + woodworking + sheet metal + electrical)

Notes on ALL (HS / College and University level) aircraft / aviation courses :

1. descriptive geometry, Math, Trig, Strength of materials, Mechanics, Electricity - same foundational principles as taught in Univ. level mechanical engineering but with special application to aviation based upon the level of the course - this to allow progress from one level to the next with a solid and cumulative foundation prior to the entry into the next program year.

AME Yr 1 courses - for preparing trades persons as non-licensed AMEs to perform work on aircraft.

1. Descriptive Geometry (2 hrs / wk)
2. Elementary Aeronautic Drawing (2 hrs / wk)

3. Aeronautic History (1 hrs / wk)
4. Mathematics (4 hrs / wk)
5. Technical - aero-craft building materials (1 hrs / wk)
6. Technical - aero-craft Fuels (1 hrs / wk)
7. Elementary aircraft THEORY instruction (1 hrs / wk)  
Calculations / Analytical determination of air resistance /  
types / gliding flight / construction / landing gear /  
fuselages / equipment
8. English and aviation - Introduction - origin and background
9. Book-keeping - accounting
10. Model Making -
11. Flying instruction - gliding
12. Air law - introduction
13. Human Factors - introduction - Begins in wk 1

AME Yr 2 course for preparing trades persons as non-licensed AMEs to perform work on aircraft. Graduates will receive a “Diploma” as a technician upon passing out from their 2nd yr.

1. Aircraft Construction
2. Mathematics
3. Trigonometry
4. Physics
5. Aeronautic History (1 hrs / wk)
6. Elementary Engine course - calculations / construction /  
assembly /
7. Elementary Airframes course
8. Mechanics
9. Strength of Materials
10. Electricity
11. Shop class - Engine assembly from component materials.
12. Shop class - aircraft assembly & disassembly /
13. Shop class - sketching / drawing / drafting - leads into  
report writing.

- 14. Model Making
- 15. English
- 16. Flying instruction - gliding (wings award)
- 17. Air Law - international
- 18. Human Factors - Begins in wk 1
- 19. Aviation Business Mgmt - Estimating & Costs

L-AME Yr 2 course:

Pre-requisites for ENTRY into the Yr3 course to prepare non-licensed AMEs for the role of being L-AMEs for LINE MAINTENANCE RELEASE functions:

- 1) MUST Possess High-School Graduation certificate including High School technical program for aircraft mechanics trades
- 2) MUST Possess Yr1 & Yr2 Graduation certificate identified above.
- 3) MUST have passed the aircraft maintenance Journey-persons' competency tests (Written, Oral and Practical) and be in possession of such certificate.
- 4) MUST possess documented record of experience and letter(s) of support of their ability and skill from their organisation in order to support their candidacy for the 3rd year program.  
NOTE : Graduates from the 3rd & 4th Years will be eligible to write their National AME License examinations as having obtained sufficient "Formal Education"

- 1. Air law - National
- 2. Human Factors - Begins in wk 1

3. Aviation Business Management
4. Mathematics
5. Statistics
6. Aero-Engines
7. Aeronautic History (1 hrs / wk)
8. Technical aircraft THEORY course - Calculations / construction / forces / determination of airfoil shapes / stability / calculation of curves / straight flight / propellor theory etc
9. Aircraft manufacturing / construction - Riveting / splicing / autogenous welding / stretching / forming / glueing / sewing / pipe and tube fitting.
10. Shop class - Engine assembly into airframe
11. Model Making
12. Flying instruction - power
13. Technical report writing
14. Aircraft / Aeronautical Inspection - Theory
15. Participate in critique of Yr 1 Yr 2 students

#### L-AME Yr 4 course

Pre-requisites for ENTRY into Yr4 course to prepare non-licensed AMEs and / or LINE MAINTENANCE licensed AMEs for the role of being “L-AMEs for BASE MAINTENANCE” RELEASE functions:

- 1) MUST Possess High-School Graduation certificate including High School technical program for aircraft mechanics trades
- 2) MUST Possess Yr1 & Yr2 Graduation certificate identified above.

3) MUST have passed the aircraft maintenance Journey-persons' competency tests (Written, Oral and Practical) and be in possession of such certificate.

4) MUST possess documented record of experience and letter(s) of support of their ability and skill from their organisation in order to support their candidacy for the 4th year.

NOTES : Graduates from the 3rd & 4th Years will be eligible to write their National AME License examinations as having obtained sufficient "Formal Education".

Graduates from the 3rd & 4th yr L-AME program as TECHNOLOGISTS should be eligible for direct entry into the appropriate degree level program for their Aeronautical Engineering "Speciality"

1. Air law - National
2. Human Factors
3. Aviation Business Management
4. Construction of large aero- engines
  1. Practical - large aero engines
  2. Large aircraft - air-ships
  3. Aeronautic History (1 hrs / wk)
  4. Aerodynamics
  5. Differential calculus
  6. Goniometry
  7. Meteorology
  8. Model Making
  9. Flying instruction - power (Private pilot)
  10. Aircraft / Aeronautical Inspection - practical
  11. Air Law - Case tribunal
  12. Human Factors

5. Participate in critique of Yr 1 Yr 2 students
6. Air Accident simulation W/ accident investigation simulation run concurrent with ALL years HF training beginning wk 1 - “accident” happens in month 4 - all years involved in safety stand-down, evidence collection etc as equates their level of “Work” at their level.